

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A ~~layer-4~~ switch comprising:
 - a layer 2 switch having a plurality of ports, wherein a third port of the plurality of ports is configured adapted to be in communication with a client;
 - a first server configured adapted to be in communication with a first one of ~~said~~ the plurality of ports;
 - a second server configured adapted to be in communication with a second one of ~~said~~ the plurality of ports; and
 - ~~said the~~ first server and ~~said the~~ second server configured being-configurable to function with ~~said the~~ layer 2 switch to cause the switch to operate as a layer 4 switch.
2. (Currently Amended) The ~~layer-4~~ switch of claim 1, wherein ~~said the~~ layer 2 switch is an ethernet switch.
3. (Currently Amended) The ~~layer-4~~ switch of claim 2, further comprising an IP layer, a TCP layer and an ethernet layer are configured to operate in accordance with layer 4 switching protocol.
4. (Currently Amended) The ~~layer-4~~ switch of claim 1, wherein only one of ~~said the~~ first server and ~~said the~~ second server can be an active server for accepting new connections from ~~said the~~ client.
5. (Currently Amended) The ~~layer-4~~ switch of claim 1, wherein ~~said the~~ first server and ~~said the~~ second server are configured to share a virtual IP address.
6. (Currently Amended) The ~~layer-4~~ switch of claim 5, wherein ~~said the~~ first and ~~said the~~ second servers are configured to respond to an ARP request for ~~said the~~ virtual IP address with a virtual MAC address.

7. (Currently Amended) The ~~layer 4~~ switch of claim 5, wherein ~~said the~~ only one of ~~said the~~ first server and ~~said the~~ second server can be an active server such that only the active server accepts new connections.

8. (Currently Amended) The ~~layer 4~~ switch of claim 5, wherein at least one of ~~said the~~ first server and ~~said the~~ second server is a passive server such that ~~said the~~ passive server drops all inbound packets having ~~said the~~ virtual IP address with a SYN flag set.

9. (Currently Amended) The ~~layer 4~~ switch of claim 5, wherein at least one of ~~said the~~ first server and ~~said the~~ second server is a passive server, ~~said the~~ passive server continues to process a previously established session and does not establish a new session.

10. (Currently Amended) The ~~layer 4~~ switch of claim 1, further comprising at least one server(s), wherein each one of ~~said the~~ at least one server(s) is configured ~~adapted~~ to be in communication with a different port of ~~said the~~ plurality of ports.

11. (Currently Amended) The ~~layer 4~~ switch of claim 10, wherein each of ~~said the~~ at least one server(s) is ~~configurable~~ configured to function with ~~said the~~ first server, ~~said the~~ second server and ~~said the~~ layer 2 switch as a layer 4 switch.

12. (Currently Amended) The ~~layer 4~~ switch of claim 11, wherein ~~said the~~ first server, ~~said the~~ second server and ~~said the~~ at least one server(s) are configured to have a virtual IP address such that ~~said the~~ virtual IP address is the same.

13. (Currently Amended) The ~~layer 4~~ switch of claim 11, wherein ~~said the~~ only one of ~~said the~~ first server, ~~said the~~ second server and ~~said the~~ at least one server(s) can be an active server such that only the active server accepts new connections.

14. (Currently Amended) The ~~layer 4~~ switch of claim 13, wherein each one of ~~said the~~ first server, ~~said the~~ second server and each one of ~~said the~~ at least one server(s) that is not the active server are passive servers.

15. (Currently Amended) The ~~layer-4~~ switch of claim 14, wherein ~~each said passive server~~ each one of the passive servers continues to process any previously established session and does not establish a new session.

16. (Currently Amended) The ~~layer-4~~ switch of claim 14, wherein if one server of ~~said~~ the first server, ~~said the~~ second server and ~~said the~~ at least one server(s) becomes configured to be a partially active server for a particular IP address, then the other servers of ~~said the~~ first server, ~~said the~~ second server and ~~said the~~ at least one server(s) are configured to partially be passive for ~~said the~~ particular IP address.

17. (Currently Amended) The ~~layer-4~~ switch of claim 14, wherein ~~said the~~ first server, ~~said the~~ second server, and ~~said the~~ at least one server(s) are configured to determine which server should be ~~said the~~ active server.

18. (Currently Amended) The ~~layer-4~~ switch of claim 14 wherein ~~said the~~ first server, ~~said the~~ second server, and ~~said the~~ at least one server(s) are configured to communicate with each other via ~~said the~~ layer 2 switch in order to determine which server should be ~~said the~~ active server.

19. (Currently Amended) The ~~layer-4~~ switch of claim 18, wherein ~~said the~~ determination of which switch should be the active switch is based on a comparison of a metric associated with each server.

20. (Currently Amended) A method of creating a ~~layer-4~~ switch comprising:
 configuring a plurality of servers to each have the same virtual IP address;
 configuring ~~said the~~ plurality of servers to each have the same virtual MAC address for ~~said the~~ virtual IP address;
 establishing a communication path between ~~said the~~ plurality of servers and a layer 2 switch such that each one of ~~said the~~ plurality of servers is configured ~~adapted~~ to be in communication with a different port of ~~said the~~ layer 2 switch;

configuring ~~said~~ the plurality of servers, in cooperation with ~~said~~ the layer 2 switch, to operate collectively as a layer 4 switch, ~~said~~ the layer 4 switch configured ~~adapted~~ to be in communication with a client via one port of ~~said~~ the layer 2 switch.

21. (Currently Amended) The method of claim 20, wherein ~~said~~ the step of configuring ~~said~~ the plurality of servers, in cooperation with ~~said~~ the layer 2 switch, to operate collectively as a layer 4 switch comprises establishing one of ~~said~~ the plurality of servers to be an active server and configuring the remaining ones of ~~said~~ the first server, ~~said~~ the second server, and ~~said~~ the at least one server(s) to be passive servers; ~~said~~ the active server being configured ~~adapted~~ to be able to set up new connections with ~~said~~ the client.

22. (Currently Amended) The method of claim 21, further comprising ~~said~~ the plurality of servers communicating with each other via ~~said~~ the layer 2 switch at configurable intervals and determining whether ~~said~~ the active server should remain ~~said~~ the active server or whether another one of ~~said~~ the plurality of servers should become ~~said~~ the active server.

23. (Currently Amended) The method of claim 20, wherein ~~said~~ the step of configuring ~~said~~ the plurality of servers, in cooperation with ~~said~~ the layer 2 switch, to operate collectively as ~~said~~ the layer 4 switch comprises configuring each of ~~said~~ the plurality of servers such that a TCP layer, an IP layer, and a layer 2 protocol acts as ~~said~~ the layer 4 switch.

24. (Currently Amended) The method of claim 23, wherein ~~said~~ the layer 2 switch is an ethernet switch and ~~said~~ the layer 2 protocol is ethernet.

25. (Currently Amended) The method of claim 23, wherein ~~said~~ the step of configuring ~~said~~ the plurality of servers, in cooperation with ~~said~~ the layer 2 switch, to operate collectively as a layer 4 switch further comprises establishing one of ~~said~~ the plurality of servers to be an active server and configuring the remaining ones of ~~said~~ the first server, ~~said~~ the second server, and ~~said~~ the at least one server(s) to be passive servers; ~~said~~ the active server being configured ~~adapted~~ to be able to set up new connections with ~~said~~ the client.

26. (Currently Amended) The method of claim 25, further comprising changing ~~said~~ the active server to a different one of ~~said~~ the plurality of servers.

27. (Currently Amended) The method of claim 21, wherein ~~said~~ the step of configuring ~~said~~ the plurality of servers, in cooperation with ~~said~~ the layer 2 switch, to operate collectively as ~~said~~ the layer 4 switch further comprises configuring each of ~~said~~ the plurality of servers such that a TCP layer, an IP layer, and a layer 2 protocol acts as ~~said~~ the layer 4 switch.

28. (Currently Amended) The method of claim 27, wherein ~~said~~ the layer 2 switch is an ethernet switch and ~~said~~ the layer 2 protocol ethernet.

29. (Currently Amended) A ~~layer~~ 4 switch comprising:
a plurality of servers, each server configured to have a virtual IP address that is the same and a configurable MAC address for ~~said~~ the virtual IP address;
a layer 2 switch having a plurality of ports, one of ~~said~~ the plurality of ports being for communicating with a client;
a communication path between each one of ~~said~~ the plurality of servers and ~~said~~ the plurality of ports such that a subnetwork is created between ~~said~~ the plurality of servers;
~~said~~ the plurality of servers being configured to operate collectively with ~~said~~ the ~~level~~ layer 2 switch so that the switch operates as a ~~level~~ layer 4 switch; and
wherein only one of ~~said~~ the plurality of servers is designated as an active server that establishes new connections with ~~said~~ the client, ~~said~~ the plurality of servers utilizing ~~said~~ the subnetwork at configured intervals to aid in a determination of which server should become ~~said~~ the active server.

30. (Currently Amended) The ~~layer~~ 4 switch of claim 29, wherein ~~said~~ the determination of which one of ~~said~~ the plurality of servers should become ~~said~~ the active server is based on a comparison of at least one metric of each one of ~~said~~ the plurality of servers.

31. (Currently Amended) The ~~layer~~ 4 switch of claim 29, wherein ~~said~~ the plurality of servers, in combination with ~~said~~ the ~~level~~ layer 2 switch, are configured to establish an IP layer, a TCP layer and a subnetwork layer to act as a ~~level~~ layer 4 switch.

32. (Currently Amended) The ~~layer~~ 4 switch of claim 31, wherein ~~said~~ the subnetwork is ethernet.